

MODIS IOT Weekly Report

Mission Operations Days: 2001/006 to 2001/012

January 5, 2001 20:00:00 GMT to January 12, 2001 20:00:00 GMT

Terra Spacecraft and MODIS Instrument Status:

Terra (AM-1) is in Normal Mode

MODIS is in B-side Science Mode

Blackbody	A Off; B On	Nominal
Calibration Electronics	A Off; B On	Nominal
Control Processor	A Off; B On	Nominal
Door: Nadir	Unlatched, open	Nominal
Space View	Unlatched, open	Nominal
Solar Diffuser	Unlatched, closed	Nominal
FDDI Formatter	A Off; B On	Nominal
FDDI Port	A On; B Off	Nominal
FIFO Memory	1 & 2 Off; 3 & 4 On	Nominal
Format Processor	A Off; B On	Nominal
Power Supply: 1	Off	Nominal
2	On	Nominal
PV FPAs: VIS	A Off; B On	Nominal
NIR	A Off; B On	Nominal
SMIR	A Off; B On	Nominal
LWIR	A Off; B On	Nominal
PC FPA: LWIR	A Off; B On	Nominal
Radiative Cooler:		
Outgas Heaters	All Off	Nominal
LWIR FPA Heater	On	Nominal
SMIR FPA Heater	Off	Nominal
Scan Assembly	A Off; B On	Nominal
SDSM	Off	Nominal
SRCA	Off	Nominal
Survival Heaters: PS1	Enabled	Nominal
PS2	Enabled	Nominal
Timing Generator	A Off; B On	Nominal
Flight Software	Rev BD + 2 patches	Nominal
Inhibit Ids Set	None	Nominal

TMONs enabled

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Nominal

This Week's Completed MODIS Activities:

Friday, January 5, 2001

005/21:53:22-21:55:53 ATC OA27: PV ECAL
(Centered around orbit 5600 Maximum Latitude)
005/23:31:15-23:35:45 ATC OA28: PC ECAL
(Centered around orbit 5601 Maximum Latitude)

Saturday, January 6, 2001

None

Sunday, January 7, 2001

None

Monday, January 8, 2001

008/12:27:08-12:38:36 ATC OA15: SD/SDSM Open
008/13:27:01-14:00:34 ATC OA19: SRCA Full Radiometric
(Data collect centered in S/C Night)
008/14:06:01-14:17:29 ATC OA16: SD/SDSM Screened
008/21:28:48-22:26:19 ATC OA23: SRCA Full Spatial
(Data collect centered in S/C Night)

Tuesday, January 9, 2001

009/13:59:43-14:51:22 ATC OA22: SRCA Full Spectral (Part 1)
(Data collect centered in S/C Night)
009/15:55:10-16:29:55 ATC OA22: SRCA Full Spectral (Part 2)
(Data collect centered in S/C Night)
009/17:17:25-18:08:41 ATC OA22: SRCA Full Spectral (Part 3)
(Data collect centered in S/C Night)
009/19:12:37-19:50:35 ATC OA22: SRCA Full Spectral (Part 4)
(Data collect centered in S/C Night)

Wednesday, January 10, 2001

None

Thursday, January 11, 2001

None

Friday, January 12, 2001

None

This Week's Scheduled MODIS Activities Not Completed:

None

Upcoming MODIS Events:

Friday, January 12, 2001

None

Saturday, January 13, 2001

013/16:59:42 ATC Move Formatter to Night ahead by 3:23 to ensure 50/50 day/night
013/17:17:25 FOT ATC commanding: Begin Slew to -3.584 degrees
013/17:20:29 ATC Set Formatter to Day Rate
013/17:20:31 ATC Set SCIABNORM Flag to ABNORM
013/17:20:33 ATC PC DC Restore to OFF
013/17:20:35 ATC PV DC Restore to OFF
013/17:20:37 ATC Sector Rotation to -3072 (EA to SV and OBCs)
013/17:27:07 ATC Sector Rotation to Zero (Normal)
013/17:27:09 ATC PV DC Restore to ON
013/17:27:11 ATC PC DC Restore to ON
013/17:27:13 ATC Set SCIABNORM Flag to NORM
013/17:27:15 ATC Set Formatter to Night Rate
013/17:29:39 FOT ATC commanding: Returned to nominal attitude
013/17:55:53 ATC Move Formatter to Day later by 3:23 to ensure 50/50 day/night

Note: For the second lunar calibration below, the spacecraft did NOT do a roll maneuver.
Terra's nominal attitude allowed for a "free" view of the moon through the space view port.

013/23:35:13 ATC Move Formatter to Night ahead by 3:23 to ensure 50/50 day/night
013/23:54:04 ATC Set Formatter to Day Rate
013/23:54:06 ATC Set SCIABNORM Flag to ABNORM
013/23:54:08 ATC PC DC Restore to OFF
013/23:54:10 ATC PV DC Restore to OFF
013/23:54:12 ATC Sector Rotation to -3072 (EA to SV and OBCs)

Sunday, January 14, 2001

014/00:00:42 ATC Sector Rotation to Zero (Normal)
014/00:00:44 ATC PV DC Restore to ON
014/00:00:46 ATC PC DC Restore to ON
014/00:00:48 ATC Set SCIABNORM Flag to NORM
014/00:00:50 ATC Set Formatter to Night Rate
014/00:31:23 ATC Move Formatter to Day later by 3:23 to ensure 50/50 day/night

Monday, January 15, 2001
None

Tuesday, January 16, 2001
None

Wednesday, January 17, 2001
None

Thursday, January 18, 2001
None

Friday, January 19, 2001
None

Maneuvers:

MODIS Lunar Calibration Roll Maneuver: 013/17:17:25
Drag Makeup Maneuver 017/19:38:00 to 017/21:08:00.

MODIS Anomalies:

No formatter anomalies have been detected since switching to B-side science operations. The MODIS IOT is continuing to monitor changes with the radiative cooler temperatures and focal plane power.

General Instrument Comments:

MODIS is in Science Mode on the B-side with the SVD and NAD open, operating with the Formatter Resolution Flight Software Patches (FRFSP). No new events have been witnessed by the FRFSP since the B-Side Transition on DOY 304.

MODIS Telemetry Trends:

The Radiative Cooler intermediate stage temperature has slowly been increasing since approximately day 2000/240. During this time the LWIR focal plane heater margin has been decreasing. The IOT is continuing to trend these telemetry mnemonics.

Non-MODIS Significant Events:

None.

Limited Life Item Status:

SRCA 10W Lamp #1: 179.2 of 500 hours

SRCA 10W Lamp #2: 139.2 of 500 hours

SRCA 10W Lamp #3: 148.4 of 500 hours

SRCA 10W Lamp #4: 61.5 of 500 hours

SRCA 1W Lamp #1: 556.6 of 4000 hours

SRCA 1W Lamp #2: 276.3 of 4000 hours

Solar Diffuser Door: 1501 of 3022 Movements

Nadir Aperture Door: 532 of 1316 Movements

Space View Door: 437 of 1316 Movements